

Serial No. 09/834,187

- 6 -

Art Unit 3635

Sub 27 (amended) The interlocking modular block system for mortarless wall assembly according to claim 4, wherein the blocks are used to house lintels without requiring the use of form work.

REMARKS

Claims 1-28 are pending.

Claims 1, 2, 3, 4, 9, 19, 23, and 27 have been amended to clarify the limitations of the invention, in view of the Examiner's comments under 35 U.S.C. §112, second paragraph, §102(b) and §103(a) provided in the Office Action mailed on February 25, 2002. The specification has been amended to correct the descriptions of the figures, which were objected to in the Office Action mailed on February 25, 2002. No new matter has been added.

Rejections Under 35 U.S.C. §112, Second Paragraph

The Examiner has rejected claims 3, 9, 19, 23 and 27 under 35 U.S.C. §112, second paragraph as indefinite. Applicants have amended claim 3 to clarify the claim language. Applicants submit that the amended claim is sufficiently clear in light of the description provided in the specification as understood by one of ordinary skill in the art.

The Examiner also rejected claims 9, 19, 23, and 27 as being indefinite as reciting "may be" in their respective lines 2. Applicants have amended the claims to replace the words "may be" with the word "are." Applicants respectfully submit that the amendment clarifies any indefiniteness in claims 9, 19, 23, and 27.

In view of the amendments to claims 3, 9, 19, 23, and 27, Applicants respectfully request reconsideration of the rejections made under 35 U.S.C. §112, second paragraph.

Rejections Under 35 U.S.C. §102(b)

The Examiner has rejected claims 1, 4-7, 10, 15, 16, 25, and 28 under 35 U.S.C. §102(b) as being anticipated by Haener. Applicants have amended claims 1-4 to clarify the limitations of the invention. This amendment takes limitations previously considered by the Examiner as "a

Serial No. 09/834,187

- 7 -

Art Unit 3635

statement of intended use of the invention," out of the preamble and places them into the claim as a limitation or feature of the invention.

The amended claims cover an interlocking modular block system for mortarless wall assembly that includes three different block configurations. This limitation is not taught in the Haener patent, which teaches a two block system, and indeed expressly teaches away from a system that includes three or more block configurations as being undesirable. The background section of the Haener patent, at Col. 1, lines 45-51, refers to three or more block configurations but does not describe the particular three-block system that is claimed in the instant application. For example, Haener does not describe a three-block system in which the first and second blocks (stretcher and corner blocks) have lengths at least one and a half times the width, and the third block (half block) has the same width and a length up to half the length of the stretcher and corner blocks, which are limitations that are taught in the instant application. Because Haener does not teach the block system Applicants claim, Haener does not anticipate the instant invention.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 1, 4-7, 10, 15, 16, 25, and 28 under U.S. C. §102(b) as anticipated by Haener.

Rejections Under 35 U.S.C. §103(a)

The Examiner has rejected claims 8, 9, 26, and 27 under 35 U.S.C. 103(a) as being unpatentable over Haener. According to the Examiner, the Haener reference teaches all the elements of the claimed invention. As described above, claims 1-4 have been amended to move the limitations from the preamble into the body of the claim, thereby clarifying that they are limitations or features of the invention. As described above, Applicants believe that the claims as amended include limitations not disclosed by Haener.

To establish a *prima facie* showing of obviousness requires motivation to modify the reference make the proposed invention, a reasonable expectation of success, and the prior art reference(s) must teach or suggest all the limitations of the claimed invention. The Haener reference does not meet these requirements because the reference does not teach or suggest all

Serial No. 09/834,187

- 8 -

Art Unit 3635

the claimed limitations of the claimed invention. Haener teaches a two block configuration for interlocking mortarless building block system, but does not teach or suggest the use of a three block system, and in fact teaches away from systems that utilize three or more block configurations. The background section of the Haener patent, at Col. 1, lines 45-51, describes systems utilizing three or more different block configurations as problematic, and states: "Additional block configurations require the manufacture of additional expensive molds and increased cost and time in changing molds in a block making machine and maintaining and inventory of the different block configurations." This description in the background clearly is intended to distinguish a system that utilizes three or more different block configurations from the Haener invention and its two block configuration.

As described above, to establish a *prima facie* showing of obviousness requires evidence of motivation to modify the teaching in Haener to get a three-block system and there must also be a reasonable expectation of success based on Haener. The fact that Haener teaches away from a block system utilizing more than two block configurations and in fact expressly indicates the drawbacks of such systems, demonstrates that the Haener reference provides no motivation to modify its teaching to result in a three block system, and in addition, given the teaching of the Haener reference, one of ordinary skill in the art would have no reasonable expectation of success with a block system of three or more block configurations.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of 8, 9, 26, and 27 under 35 U.S.C. 103(a) as being unpatentable in view of Haener.

The Examiner has rejected claims 2, 11, 12, 17, 18, 19, and 20, as being unpatentable over Haener in view of Brewington. As described above, claims 1-4 have been amended to move the limitations from the preamble into the body of the claim, thereby clarifying that they are limitations or features of the invention. As described above, Applicants believe that the claims as amended include limitations not disclosed by Haener and not disclosed by Brewington.

To establish a *prima facie* showing of obviousness requires motivation to combine the two references, a reasonable expectation of success, and the prior art reference or combination of

Serial No. 09/834,187

- 9 -

Art Unit 3635

references must teach or suggest all limitations of the claimed invention. The combination of the Haener and Brewington references does not meet these requirements because taken together the references do not teach or suggest all the limitations of the claimed invention. Haener teaches a two-block configuration for an interlocking mortarless building block system, but does not teach or suggest the use of a three block system, and in fact teaches away from a system utilizing blocks with three or more configurations. Brewington teaches a single building block configuration. Neither references teaches or suggests the use of a three-block system. Applicants respectfully submit that combining the teaching of Haener with a single limitation (the crossbar) from the single-block system of Brewington, which teaches only a single-block system, would not result in the three-block configuration of the claimed invention. Therefore the requirement for a *prima facie* case of obviousness has not been met.

The additional requirements to establish a *prima facie* showing of obviousness, that there be motivation to combine the two references and there be a reasonable expectation of success, have also not been satisfied. The Examiner states that one of ordinary skill in the art would modify the block of Haener to include protruding end walls, which are taught in Brewington. Applicants submit that there is no motivation to combine the teaching of the two-block system of Haener with a single-block system of Brewington in any way that results in a three-block system. As described above, Haener expressly teaches the drawbacks of a system of three or more block configurations, and Brewington teaches a single block system. The lack of any suggestion, and indeed the presence in Haener of a negative assessment of block systems with more than two block configurations, clearly demonstrates that one of ordinary skill in the art would have no motivation to combine these references and would also have no expectation of success of a three-block system based on a combination of Haener with Brewington.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 2, 11, 12, 17, 18, 19, and 20, as being unpatentable over Haener in view of Brewington.

The Examiner has rejected claims 3, 13, 14, and 21-24, as being unpatentable over Haener in view of Mullins. As described above, claims 1-4 have been amended to move the

Serial No. 09/834,187

- 10 -

Art Unit 3635

limitations from the preamble into the body of the claim, thereby clarifying that they are limitations or features of the invention. As described above, Applicants believe that the claims as amended include limitations not disclosed by Haener and not disclosed by Mullins.

To establish a *prima facie* showing of obviousness requires motivation, a reasonable expectation of success, and the prior art reference or combination of references must teach or suggest all the claimed limitations. The combination of the Haener and Mullins references does not meet these requirements because taken together the references do not teach or suggest all the limitations of the claimed invention.

Haener teaches a two block configuration for an interlocking mortarless building block system, but does not teach or suggest the use of a three block configuration, and as noted above teaches away from systems with three or more block configurations. Mullins teaches a four building block configuration. Neither reference teaches or suggests the use of a three block configuration system, and therefore, the combination of these references would not result in the claimed invention. In addition, one of ordinary skill in the art would have no motivation to combine the teaching of the Haener and Mullins references because Haener teaches away from systems of blocks that have three or more different block configurations, which is in direct conflict with Mullins' four block configuration system. The conflicting teaching in the Haener and Mullins references also indicates that one of ordinary skill in the art would have no reasonable expectation of success in combining the teachings of two-block and four-block building systems to obtain the instant claimed invention.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 3, 13, 14, and 21-24, as being unpatentable over Haener in view of Mullins.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after reviewing the amendments and this response, that the application is not in

Serial No. 09/834,187

- 11 -


Art Unit 3635

condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No: 23/2825.

Respectfully submitted

By:


John R. Van Amsterdam, Reg. No. 40,212
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Tel. No.: (617) 720-3500
Attorney for Applicants

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Date: August 26, 2002
X8/25/02x

Marked-up Specification

The specification from page 4, line 5 through page 5, line 7 is amended as follows:

Fig. 1 shows a Stretcher Block Unit. [

- a.]Figure 1a is a perspective view of the stretcher block unit. [
- b.]Figure 1b is a side view of the stretcher block unit. [
- c.]Figure 1c is a top view of the stretcher block unit.

Fig. 2 shows a Corner Block Unit. [

- a.]Figure 2a is a perspective view of the corner block unit. [
- b.]Figure 2b is a side view of the corner block unit. [
- c.]Figure 2c is a top view of the corner block unit.

Fig. 3 shows a Half Block Unit. [

- a.]Figure 3a is a perspective view of the half block unit. [
- b.]Figure 3b is a side view of the half block unit. [
- c.]Figure 3c is a top view of the half block unit. [

Fig. 4 shows a p[P]rocedure for constructing a wall with horizontal stiffener. [

- a. First stage]Figure 4a shows[-] placing the plastic sheet (26). [
- b. Second stage]Figure 4b shows[-] laying the next course on the plastic sheet (26). [
- c. Third stage]Figure 4c shows [-]placing the steel (27) and casting the stiffener (28). [
- d.]Figure 4d shows t[T]he completed wall comprising a steel bar (27) and stiffener (28).

Fig. 5 shows a p[P]rocedure for casting vertical ties. [

- a. First stage]Figure 5a shows [-] laying and casting the first course. [
- b. Second stage]Figure 5b shows [-] constructing 1 meter masonry and casting the vertical stiffener (28). [

Serial No. 09/834,187

- 13 -

Art Unit 3635

- c. Third stage]Figure 5c shows [-] casting the 2nd meter of the stiffener (28).
Steel is indicated as (27) and stiffener is indicated as (28).

Fig. 6 shows an exploded view of the c[C]onstruction of a corner connection showing the arrangement of blocks in the (Figure 6a) first, (Figure 6b) second and (Figure 6c) third courses.

Fig. 7 shows a p[P]rocedure for constructing a wall with door opening. [

- a. First stage]Figure 7a shows [-] laying the first course and identifying the door opening. [
- b. Second stage]Figure 7b shows [-] constructing 1 meter masonry and casting vertical stiffeners (28). [
- c. Third stage]Figure 7c shows [-] casting the lintel. [
- d. Fourth stage]Figure 7d shows [-] the completed wall with door opening.
Steel is indicated as (27) and stiffener is indicated as (28).

Fig. 8 shows a p[P]rocedure for constructing a wall with window opening. [

- a. First stage]Figure 8a shows[-] constructing 1 meter masonry and casting the vertical stiffeners, with horizontal stiffener below a window. [
- b. Second stage]Figure 8b shows[-] constructing the 2nd meter of the wall and casting the lintel. [
- c. Third stage]Figure 8c shows[-] the completed wall with window opening.
Steel is indicated as (27) and stiffener is indicated as (28).

Serial No. 09/834,187

- 14 -

Art Unit 3635

Marked-Up Claims

1.(amended) An interlocking modular block system for mortarless wall assembly, comprising:
[in which]

a plurality of blocks [are] laid up in courses in a staggered relationship,
wherein three different block configurations are provided, stretcher and corner blocks
having lengths at least one and a half times the width, and half block having the same width and
a length up to half the length of stretcher and corner blocks, said blocks comprising:

a pair of spaced, parallel, upright sidewalls having flat top and bottom surfaces, said
sidewalls having block-interlocking means;

a first transverse end wall extending between said sidewalls spaced from a second end of
said blocks; and

a second transverse end wall extending between said sidewalls spaced from a second end
of said blocks.

2.(amended) An interlocking modular block system for mortarless wall assembly, comprising
[in which]

a plurality of blocks [are] laid up in courses in a staggered relationship according to
claim 1 wherein the stretcher block comprises:

a pair of spaced, parallel, upright sidewalls (1, 2) having flat top and bottom surfaces,
said sidewalls having block-interlocking means (3, 4, 5, 6) on opposed ends thereof;

a first transverse, protruding end wall (7) extending between said sidewalls at a first end
of said block; and

a second transverse, protruding end wall (8) extending between said sidewalls spaced
from a second end of said block.

3.(amended) An interlocking modular block system for mortarless wall assembly, comprising
[in which]

a plurality of blocks [are] laid up in courses in a staggered relationship according to
claim 1 wherein the corner block comprises:

Serial No. 09/834,187

- 15 -

Art Unit 3635

a pair of spaced, parallel, upright sidewalls (9, 10) having flat top and bottom surfaces, said sidewalls having block-interlocking means (11, 12, 13, 14) on opposed ends thereof;

a first transverse end wall (15) extending between said sidewalls at a first end of said block;

a second transverse end wall (16) extending between said sidewalls spaced from a second end of said block;

a transverse upright support web (17) spans said sidewalls, is integral and defines [defining] a cavity for receiving cementitious material therein; and

protrusions (18) on the inside of sidewalls, extending from a base substantially coplanar with said sidewall bottom surfaces and having tips extending above said sidewall top surfaces configured to interlock with a block in a next succeeding course.

4.(amended) An interlocking modular block system for mortarless wall assembly, comprising [in which]

a plurality of blocks [are] laid up in courses in a staggered relationship according to claim 1 wherein the half block comprises:

a pair of spaced, parallel, upright sidewalls (19, 20) having flat top and bottom surfaces, said sidewalls having block-interlocking means (21, 22);

a first transverse end wall (23) extending between said sidewalls at a first end of said block;

a second transverse end wall (24) extending between said sidewalls spaced from a second end of said block; and

a protrusion (25) on the inside of said sidewalls, extending from a base substantially coplanar with said sidewall bottom surfaces and having a tip extending above said sidewall top surfaces configured to interlock with a block in a next succeeding course.

9.(twice amended) The interlocking modular block system for mortarless wall assembly according to claim 1, wherein the blocks can [may] be used to house lintels without requiring the use of form work.

Serial No. 09/834,187

- 16 -

Art Unit 3635

19.(amended) The interlocking modular block system for mortarless wall assembly according to claim 2, wherein the blocks can [may] be used to house lintels without requiring the use of form work.

23.(amended) The interlocking modular block system for mortarless wall assembly according to claim 3, wherein the blocks can [may] be used to house lintels without requiring the use of form work.

27.(amended) The interlocking modular block system for mortarless wall assembly according to claim 4, wherein the blocks can [may] be used to house lintels without requiring the use of form work.

15

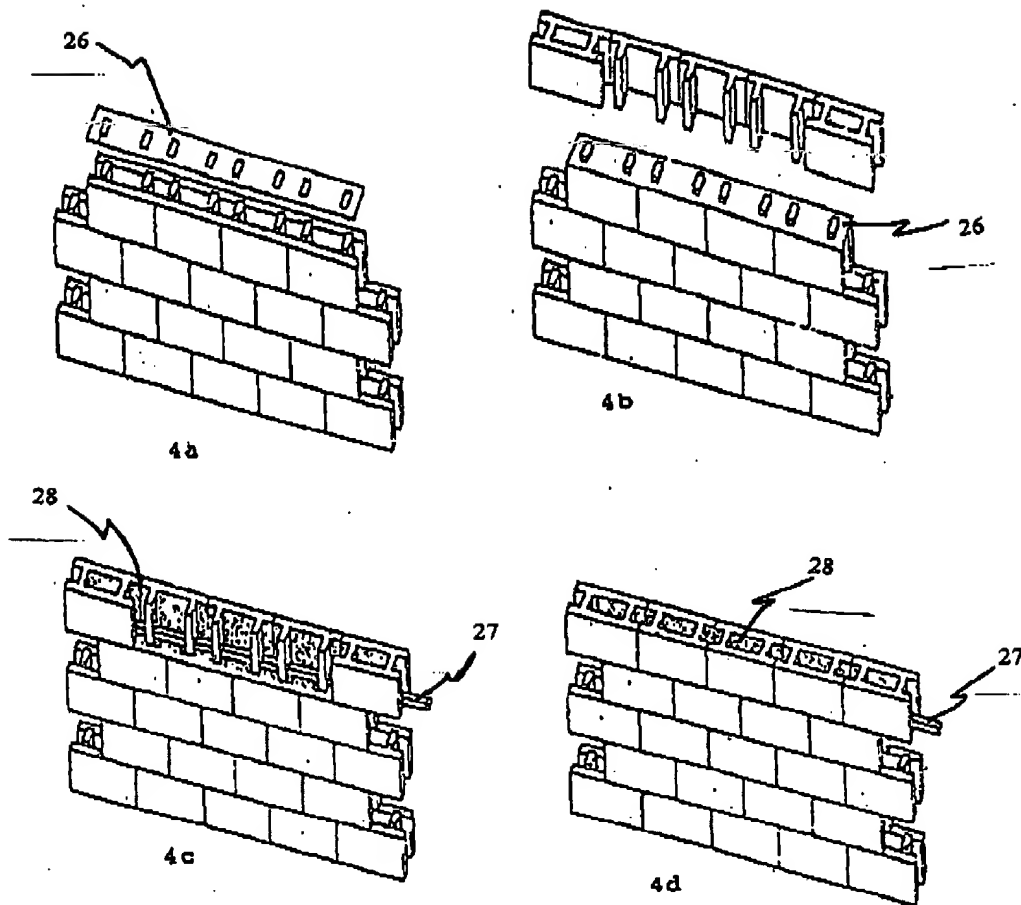


Fig. 4

16

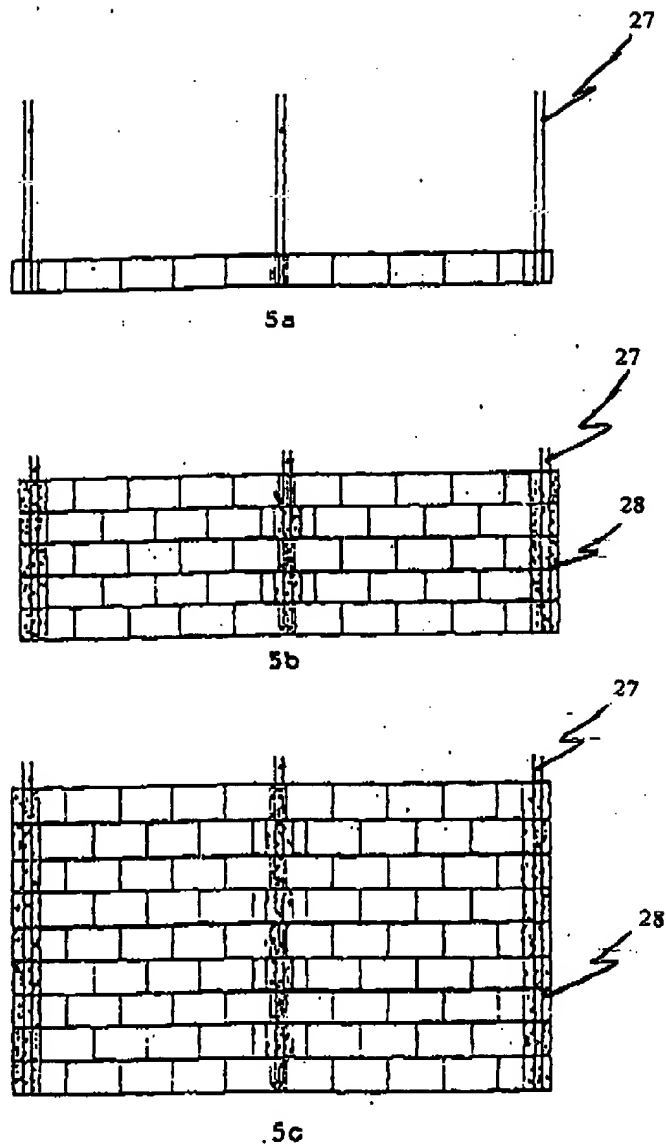


Fig. 5

17

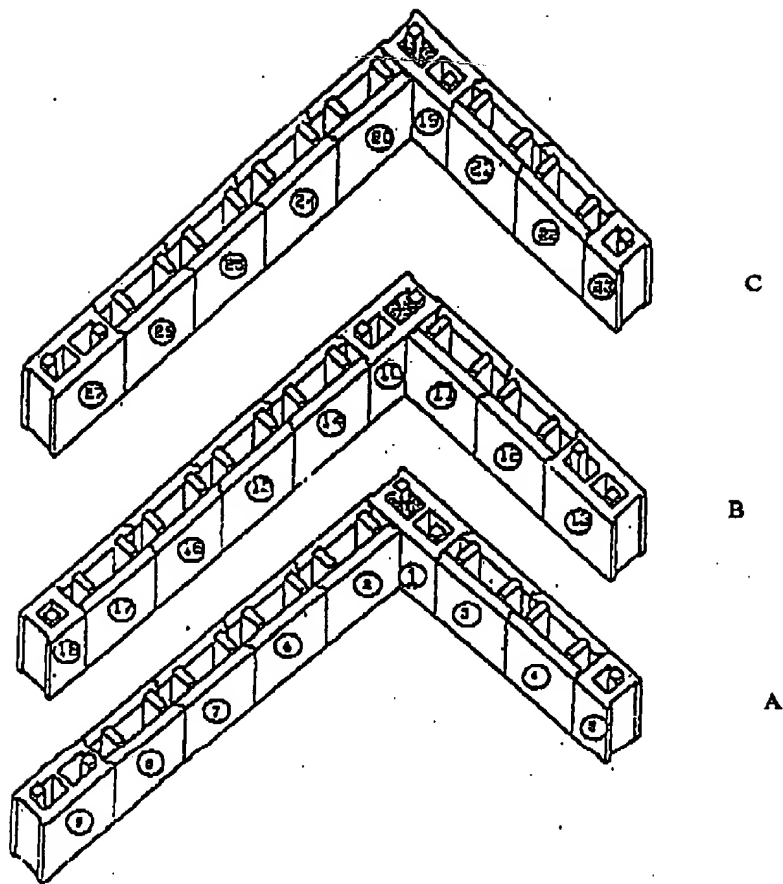


Fig. 6

18

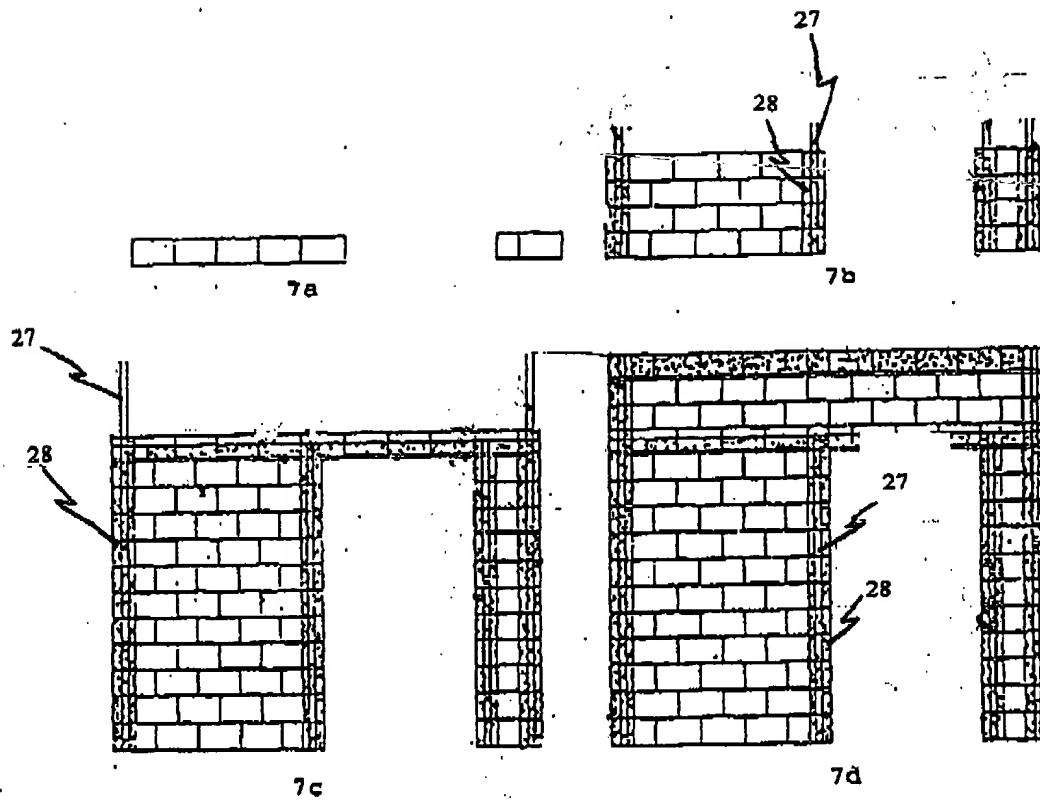


Fig. 7

19

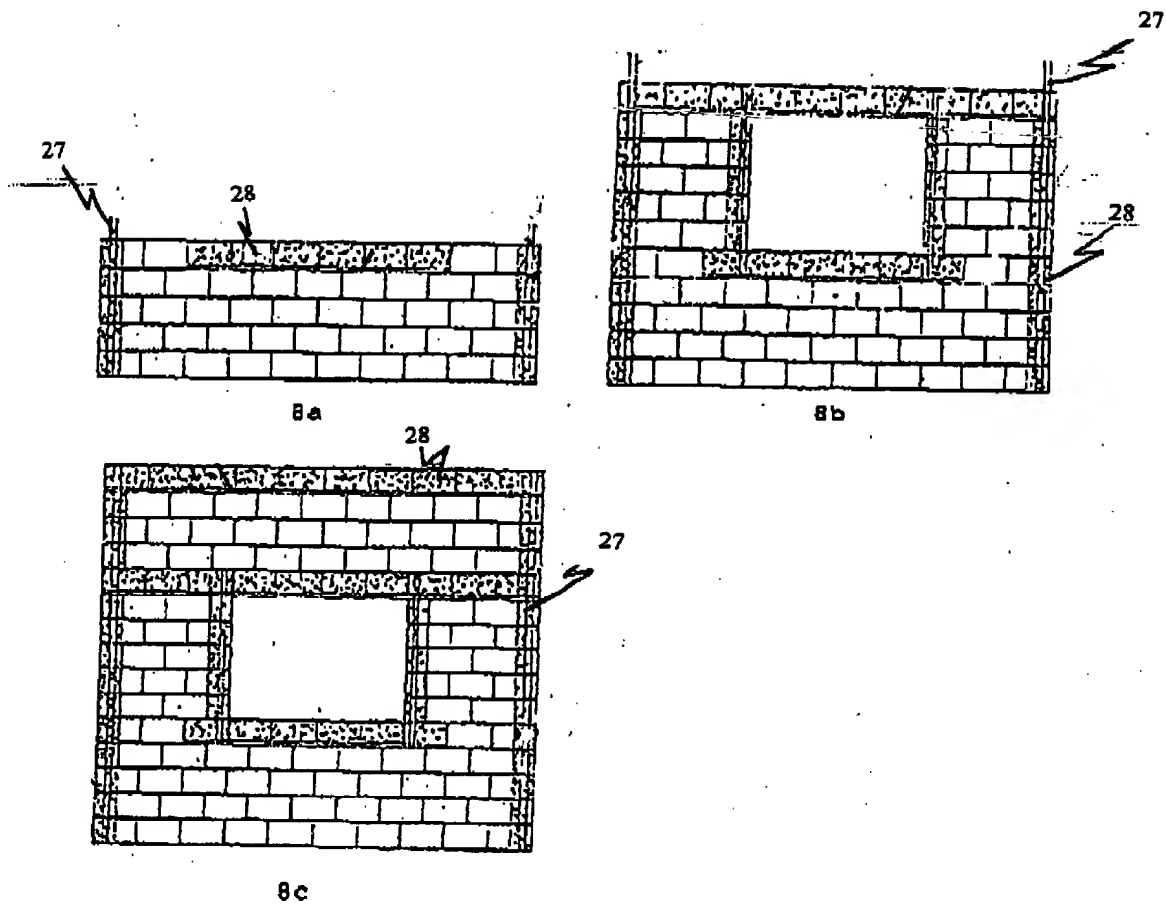


Fig. 8